

Appendix A

2006 Piping Plover Breeding Pair Summaries

Bodie Island Spit, Oregon Inlet

This area of CAHA is located at the southern terminus of Bodie Island. Breeding activity was seen here. A pre-nesting closure was posted for PIPL on 3/27/06. In April and early May, 6-10 PIPLs were present. Breeding behavior was first noted on 5/17-5/19. More intense breeding behavior was observed from 6/15-6/21. No nest was ever found.

Pre-nest observations

4/14/06	10 PIPL foraging and roosting; 9 a.m.-12 a.m.
4/17/06	10 (2 banded) PIPL foraging and roosting inside closure on flats; 9-12 a.m.
4/18/06	8 foraging on flats soundside of dunes inside closure; 9 a.m.-11 a.m.
4/19/06	6 PIPLs foraging on soundside flats in closure; 7:30 a.m.-10:40 a.m.
4/20/06	10 PIPLs foraging and roosting, soundside, in closure; 2 p.m.-3 p.m.
4/26/06	10 PIPLs foraging on soundside in closure; 8:30 a.m.-10 a.m.
4/27/06*	2 PIPLs foraging at 1.3 mile of ramp 27; 10:20 a.m.
4/28/06	10 PIPLs foraging and flying in and out of closure; 8:30 a.m.-10 a.m.
5/2/06	0 PIPLs, high winds; 8:30 a.m.-10:30 a.m.
5/3/06	6 PIPLs foraging on soundside; 8:30 a.m.-10:15 a.m.
5/4/06	6 PIPLs foraging on soundside in closure, 1 bird horizontal threat display and running glide to another PIPL. PIPL would periodically exit closure while feeding; 7:15 a.m.-11 a.m.
5/5/06	4 PIPLs foraging at southeast corner on oceanside shoreline; 2 p.m.-3 p.m.
5/6/06	0 PIPLs, rainy; 8:40 a.m.-11 a.m.
5/10/06	0 PIPLs, sunny; 8:50 a.m.-11 a.m.
5/17/06	1 PIPL foraging, gliding run, and horizontal threat display, southeast area of closure, 1 WIPL observed; 7:45 a.m.-12:20 p.m.
5/19/06	1 PIPL foraging, charging, gliding run at southeast flats near dunes; 8 a.m.- 12:20 p.m.
5/20/06	1 PIPL foraging inside closure; 12:30 p.m.-2:30 p.m.
5/23/06	2-3 PIPLs foraging in closure; 8:30 a.m.-11:35 a.m.
5/24/06	2 PIPLs foraging, 1 in closure mudflat, 1 at 0.2 mile south of ramp 4 oceanside shoreline; 9:15 a.m.-12:45 p.m.
5/25/06	1 PIPL foraging in closure, flies south towards Pea Island, closure searched for scrapes or nest, none found; 8:15 a.m.-11:10 a.m.
5/26/06	1 PIPL foraging and gliding run in closure; 8:40 a.m.-11 a.m.
5/28/06	0 PIPLs observed; busy loud beach scene; 4 p.m.-6:30 p.m.
5/29/06	0 PIPLs observed; 1:15 p.m.-7 p.m.
5/30/06	0 PIPLs observed; 3 sets of fox tracks; 1:35-4:35 p.m.,
5/31/06	0 PIPLs observed; 12 p.m.-2 p.m.
6/1/06	2 PIPL calling, 1 observed foraging/flying, and 1 WIPL; 11 a.m.-1 p.m.
6/2/06	0 PIPLs from 7:50 a.m.-11 a.m., 2 noted on southeast flats soundside

6/3/06 2 PIPLs foraging at southeast corner soundside near each other, some charges, 8:45 a.m.-12 p.m., 2 WIPL foraging on soundside-male and female

6/4/06 1 PIPL foraging/roosting; nearby AMOY nest destroyed with fox tracks leading to nest; 8:40 a.m.-1:45 p.m.

6/5/06 0 PIPL, 1 WIPL; 11:50-1:55 p.m.

6/6/06 0 PIPLs observed; 7:30 a.m.-10 a.m.

6/7/06 0 PIPLs observed; tide very high, spit is flooded; 4:30 p.m.-6:30 p.m.

6/8/06 0 PIPLs observed; 5:40 p.m.-7 p.m.

6/9/06 0 PIPLs observed in closure; 8:55 a.m.-11:30 a.m.

6/10/06 0 PIPLs observed in closure; 8:55 a.m.-11 a.m.

6/11/06 0 PIPLs observed; 12:30 p.m.-1:40 p.m.

6/13/06 1 PIPL foraging, preening, flying in closure near dunes; 6:45 a.m.-10 a.m.

6/14/06 1 PIPL foraging, flying northwest; 6:45 a.m.-11:30 a.m.

6/15/06 4 PIPLs, tattoo high stepping, displays together, 2 fly off, 1 PIPL scraping, other with rump up, aerial displays, near closure boundary; 7 a.m.-11 a.m.

6/16/06 3 PIPLs feeding together, aerial displays, scraping, and flying; 8 a.m.-1:30 p.m.

6/19/06 2 PIPLs feeding together, 3rd PIPL seen separately; 8:30 a.m.-12:46 a.m.

6/20/06 2 PIPLs feeding together at ocean intertidal, later at tidal cove, 3rd PIPL joins later to feed with some aggression, 1 male and 2 females; 8:24 a.m.-12:54 p.m.

6/21/06 4 PIPLs observed foraging together, high step tattoo, roosting, gliding run, attempted copulation failed, all fly off together; 7:50 a.m.-12:30 p.m.

6/22/06 0 PIPLs observed from 11:30 a.m.-1:30 p.m.; 2 PIPLs observed foraging, roosting, and flying together in closure from 4:30 p.m.-6:30 p.m.

6/23/06 2 PIPLs foraging and flying together in closure; 3:41 p.m.-7:22 p.m.

6/25/06 0 PIPLs observed, foggy conditions; 5:30 p.m.-8 p.m.

6/26/06 2 PIPLs foraging, windy conditions from 7 a.m.-11 a.m.; 1 PIPL observed, windy conditions from 5:20 p.m.-7:15 p.m.

6/27/06 0 PIPLs observed; 6:20 a.m.-8:30 a.m.

6/28/06 2 observed foraging in northeast area of closure at 8:35 a.m.

6/29/06 3 PIPLs foraging in closure; 7 a.m.-10 a.m.

6/30/06 1 PIPL foraging on flats in closure; 7:15 a.m.-12:30 p.m.

7/2/06 0 PIPLs observed; 8:30 a.m.-2 p.m.

7/4/06 1 PIPL foraging at large tidal pool in closure; 6:45 a.m.-11 a.m.

7/5/06 1 PIPL foraging in closure; 7 a.m.-8 a.m.

7/6/06 0 PIPLs observed; 6:30 a.m.-11 a.m.

7/7/06 0 PIPLs observed; 11:15 a.m.-1:15 p.m.

7/10/06 0 PIPL observed during LETE survey from sandy flats toward inlet in closure; 7:40 a.m.-10 a.m.

7/11/06 0 PIPLs observed; 8 a.m.-9:15 a.m.

7/12/06 0 PIPLs observed; 7:45 a.m.-12 p.m.

7/13/06 0 PIPLs observed; 6:20 a.m.-12:30 p.m.

7/19/06 0 PIPLs observed; 11 a.m.-1:30 p.m.

9/8/06 nesting closure modified to wintering closure

Cape Point

This area of CAHA is the cape of Hatteras Island. The site was posted on 3/28. There were two nests in 2006, the last nests at Cape Point occurred in 2001. Though there was nest scrapes and brood use of the point in 2005. There were several shoreline closure modifications on the west side throughout the breeding season. Pair 1 nest was discovered on 5/14 and pair 3 nest was found on 6/15. Pair 1 fledged 3 chicks on 7/5 and pair 3 hatched 3 chicks, but they were lost.

Pre-nests observations

4/3/06 5 PIPLs foraging in wet drainage on W side; 8 a.m.-2 p.m.
4/11/06 2 PIPLs foraging at pool; 12:55 p.m.-2:35 p.m.
4/12/06 1 PIPL foraging at pool; 12:30 p.m.-2:15 p.m.
4/13/06 3 PIPLs foraging at pool and tidal flats SW of point; 1 p.m.-3 p.m.
4/15/06 0 PIPLs 7:35 a.m.-9:35 a.m., 1 PIPL foraging at hook and flew off calling towards South Beach, calling over ramp 45 road to salt pond road and flew back towards point; foraging at hook; 1:10 p.m.-3:18 p.m.
4/16/06 0 PIPLs observed from 8:06 a.m.-9:30 a.m.
4/17/06 3 PIPLs charging, scraping, roosting, flying, aerial display at center of closure near dunes; 9:20 a.m.-11:40 a.m.
4/18/06 2 PIPLs foraging in dry salt pond flats; 12:30 p.m.-3 p.m.
4/19/06 4 PIPLs foraging, charging, roosting, scraping; 8-11:30 a.m.
4/20/06 3 PIPLs foraging, preening, flying, scraping; 8-10 a.m.; 2 PIPLs observed from 11:30 a.m.-12 p.m.
4/21/06 2 PIPLs foraging, 7:40 a.m.-9:40 a.m.; 5 PIPLs-charges, upright posture, foraging, flying from 2:30 p.m.-3 p.m.
4/22/06 2 PIPLs foraging: 7:20 a.m.-9 a.m.
4/24/06 3 PIPLs foraging, charging, high step tattoo, roosting, preening outside and inside closure: 8:10 a.m.-11 a.m.
4/25/06 4 PIPLs, charging and displaying aggressive behavior; 9:30 a.m.-10:15 a.m.
4/27/06 3 PIPLs foraging at pond and surf; 12 p.m.-2:30 p.m.
4/28/06 6 PIPLs foraging at pond, surf, dunes; 7:30 a.m.-2 p.m.
4/29/06 4 PIPLs foraging, roosting inside and outside closure; 7:40 a.m.-9:10 a.m.
5/1/06 2 PIPLs roosting in low dunes 10 ft. from signs, flushed as we pulled signs up to modify closure and establish 0.2 mile shoreline closure on W side, 2:30 p.m.; 1 PIPL foraging in flats of salt pond, high winds, 3 p.m.
5/2/06 4 PIPLs foraging, charging in closure; 7:30 a.m.-2:51 p.m.
5/3/06 3 PIPLs foraging on salt pond mud flat; 10:20 a.m.-10:35 a.m.
5/4/06 1 PIPL foraging, 9 a.m.-9:30 a.m. at mudflat; 5 PIPLs present, foraging, charging from 1 p.m.-2:30 p.m.
5/5/06 2 PIPLs foraging at ephemeral pond in shoreline closure; walk through revealed no flushing or response from PIPLs, 1 WIPL; 10:05 a.m.-11:13 a.m.

5/6/06 2 PIPLs foraging outside of shoreline closure on W side, disturbance noted, 9:15 a.m.-9:30 a.m.; 2 PIPLs roosting on open beach 100 feet outside shoreline closure, flushed by observer's truck, 2 other PIPLs foraging at ephemeral pool, golf ball in closure, 10 a.m.-11:05 a.m.; 1 PIPL foraging at ephemeral pond and 2 foraging at salt pond flat, 1:45 p.m.-3 p.m.

5/9/06 4 PIPLs foraging in closure; 7:45 a.m.-3 p.m.

5/10/06 4 PIPLs foraging at salt pond flat and at point; 7:15 a.m.-11 a.m.

5/11/06 5 PIPLs foraging at salt pond flat and 1 at ephemeral pool; 2:30 p.m.-3:30 p.m.

5/14/06 4 PIPLs observed foraging at salt pond flats; 3:10 p.m.

5/15/06 5 PIPLs, foraging, threat displays, at ponds and flats; 8:10 a.m.-2:35 p.m.

5/16/06 1 PIPL in front of nest, 2 PIPLs foraging west of nest; 7:30 a.m.-3 p.m.

5/17/06 3 PIPLs foraging at surf west of nest, 7:30 a.m.-11:15 a.m.;
1 PIPL flying, chasing gulls, 3 nest scrapes found, 8:50 a.m.-9:40 a.m.

5/19/06 2-3 PIPLs foraging on salt pond flats, 7:20 a.m.-2:45 p.m.

5/20/06 3 PIPLs foraging at salt pond flats, windy, 8 a.m.-2:30 p.m.

5/21/06 3 PIPLs foraging at surf in west shoreline closure, 7:40 a.m.-11 a.m., walk through survey, no new scrapes or other PIPL

5/22/06 1-3 PIPLs foraging at surf in west shoreline closure, 0 PIPLs at salt pond flats, 7:40 a.m.-10:22 a.m.

5/23/06 1-3 PIPLs foraging at surf in west shoreline closure, 7:35 a.m.-1:46 p.m.

5/24/06 2-3 PIPLs foraging at surf in west shoreline closure, 7:52 a.m.-10:47 a.m.
3 PIPLs foraging at surf in west shoreline closure and 1 foraging about
300 feet west outside closure, 10:40 a.m.

5/25/06 2-3 PIPLs foraging on salt pond flats 8 a.m.-9 a.m., on low dune at 9 a.m.
1 PIPL roosting and 1 PIPL aerial display over low dunes

5/27/06 4 PIPLs foraging on dried salt pond flats and 1 PIPL foraging on ocean beach east of salt pond, 9 a.m.-10 a.m., 3 PIPLs foraging and flying at salt pond flats, 11:45 a.m.-2:03 p.m.

5/28/06 3 PIPLs flying, alarm calling, and scraping near dunes of point, scraping east of current PIPL nest, 1 WIPL and 1 SNPL, 3 plover nest scrapes at south end of closure, 7:33 a.m.-9:38 a.m.

6/1/06 2 PIPLs scraping northeast of current PIPL nest, 1 PIPL territorial flying near salt pond flat opening, 7:30 a.m.-9 a.m., shoreline closure expanded on west side

6/5/06 2 PIPLs scraping at low dunes in center, rump pecks observed, high step tattoo, copulation observed, scrapes found, 3 p.m.-7 p.m.

6/6/06 1 PIPL seen flying over closure, 9:17 a.m.

6/7/06 3 PIPLs foraging at salt pond flats, 8:58 a.m.

6/8/06 2 PIPLs foraging on salt pond flats and flew towards point, 10:50 a.m.

6/9/06 3 PIPLs foraging on salt pond, 3rd pair, 2 PIPLs flew out towards point, PIPLs seen near scrapes, 8:30 a.m.-9:30 a.m.

6/12/06 2 PIPLs foraging and flying on southwest side of closure, 8:10 a.m.-12:44 p.m.
 6/13/06 2 PIPLs foraging and running at dunes, pond on west side of closure, 6:30 a.m.-11:20 a.m.; 3 PIPLs foraging at surf on west side of closure and territorial interactions, 1:14 p.m.-2:20 p.m.
 6/14/06 3 PIPLs foraging at salt pond flats, 7:30 a.m.
 6/16/06 2 PIPLs high step tattoo, copulating, 9 a.m.-10 a.m.

Pair 1, Nest 1

Lat. 35.22432 Long 75.53303

Location Description: Cape Point (west side)

Nest Activity Pre-Hatch

5/3-5/06 nest clutch completed based on hatch date (6/1) and 27-30 incubation
 5/14/06 4 egg nest found; predator exclosure installed and acceptance in 18 minutes; 2 adults observed; storm moved in 5 minutes after acceptance of the exclosure with a strong wind and rain for 45 min.; incubating adult stayed on nest during storm; nest is 210 ft. to bird signs/ ORV corridor
 5/15/06 1 adult observed incubating; 7:30 a.m.-3 p.m.
 5/16/06 foraging and incubating intermittently throughout observation time, 2 adults observed; 7:30 a.m.-3 p.m.
 5/17/06 incubating, preening and foraging; 7:30-2:20 p.m.
 5/18/06 nest was checked-4 eggs present, no evidence of predator tracks; incubating throughout observation time; 1:35 p.m.-3 p.m.
 5/19/06 1 adult incubating nest; windy; 9:45 a.m.-12 p.m.
 weather conditions and sand blowing impaired visibility
 5/20/06 windy conditions and sand blowing, adult incubating nest, 10 a.m.-3 p.m.
 5/21/06 2 adults observed; incubating, 7:30 a.m.-3 p.m.
 5/22/06 2 adults observed; incubating, 7:30 a.m.-3 p.m.
 5/23/06 2 adults observed; incubating, 7:30 a.m.-3 p.m.
 5/24/06 2 adults observed; incubating, 7:30 a.m.-3 p.m.
 5/25/06 2 adults observed; in the a.m., PIPL left the nest to chase off a nearby gull; adults alternating incubation of the nest (changed out ~every ½ hour); 10:30 a.m.-7:40 p.m.
 5/26/06 2 adults observed; low visibility due to wind and sand blowing; kite boarders came ashore in the middle of the bird closure, they were requested to leave by the observer and they walked the shoreline out; 8 a.m.-5 p.m.
 5/27/06 nest was checked today-4 eggs present; 2 adults observed, black bellied plover entered the nest exclosure and the PIPL adult displayed broken wing behavior; 2 pedestrians observed crossing the beach at waters edge, 2:30 p.m.-7:30 p.m.
 5/28/06 2 adults seen, 1 adult seen pecking at nest before bird left the nest, adult displayed distraction behavior when 3 other technicians who were surveying approached nest area, interaction between PIPL adult and SNPL

- occurred at 2:40 p.m., 1 PIPL chased after SNPL, closure violation that occurred involving a motor vehicle, 8 a.m.-7 p.m.
- 5/29/06 2 adults observed, at 12 p.m. an AMOY was nearby and PIPL came off the nest to distract AMOY with broken wing behavior, AMOY chased after PIPL, PIPL makes an alarm call, PIPL returned to nest within 5 minutes, 7:30 a.m.-8 p.m.
- 5/30/06 2 adults observed, very foggy in the a.m., an AMOY nearby in the afternoon was chased off by the adult PIPL, a lot of movement off and on of the nest, equal time spent foraging and incubating, adult seems anxious, 7:30 a.m.-5 p.m.
- 5/31/06 both adults seen, incubation, chased off 3rd PIPL, on and off nest frequently, 7:30 a.m.-3 p.m.

Brood Observations

- 6/01/06 nest hatched, 2 chicks (1day old) and 2 adults observed; 1 chick exited enclosure, drawing the parent out to brood, p.m. observation notes that an adult incubated most of the time and the observer did not see the chicks emerge other than a head popping out on occasion; raccoon tracks observed in dune area; 8:45 a.m.-9 a.m. and 2 p.m.-4 p.m.
- 6/02/06 3 chicks (2 days old) and 3 adults seen; both individuals from the pair and one additional PIPL from the other nearby pair; cat tracks noted; chicks foraging in dry flats area; in the evening the brood was observed moving into the dune/vegetation area; adults chased off ghost crab; 4th egg is assumed lost/unhatched; 7:30 a.m.-8 p.m.
- 6/03/06 3 chicks (3 days old) observed; chicks and both adults alternate between foraging, brooding and seeking protection from wind behind vegetation; thunder and lightning storms accompanied by hard rain in the p.m.; SNPL observed; 7:45 a.m.-7:20 p.m.
- 6/04/06 3 chicks (4 days old) and 2 adults observed; one chased away an AMOY from the brood; heat waves reduced visibility after 12:30 p.m.; chicks are not spotted again, assumed that the brood moved into dune/vegetation area; 6:40 a.m.-8 p.m.
- 6/05/06 2 chicks (5 days old) and 1 adult observed; observer got a brief sighting of 2 chicks on a sandy ridge near nest site, no further sightings of the PIPL chicks for the rest of the day; 7 a.m.-8 p.m.
- 6/06/06 no chicks observed today and only one adult was observed, observer unsure of if it was an adult from the breeding pair; 8 a.m. to 12 p.m.
- 6/07/06 3 chicks (7 days old) and both adults observed; great black back gulls roosting near enclosure; brood moving from west of salt pond opening in the dunes to 200 ft. SW of enclosure in dry ephemeral pond to forage; 8 a.m.-8 p.m.
- 6/08/06 3 chicks (8 days old) and both adults observed; chicks were foraging SW of their enclosure in a partly dry ephemeral pool and roosting in the dunes; 1 adult remained with the chicks the majority of the time; raccoon tracks were noted; 8 a.m.-8 p.m.

- 6/09/06 3 chicks (9 days old) and 2 adults observed; chicks foraged south of enclosure at ephemeral pool; adult made a pecking gesture at a ghost crab when it got close to the chicks; ghost crab retreated, black back gulls and ghost crabs were observed in the area; 8 a.m.-5 p.m.
- 6/10/06 3 chicks (10 days old) and 2 adults observed; foraging at the surf, ephemeral pool, sand/mud flat to the west of the nest site; adults observed chasing other birds from the feeding areas on several occasions; 7:45 a.m. to 8p.m
- 6/11/06 3 chicks (11 days old) foraging in the ephemeral pool area west of enclosure; chicks are flapping and stretching there wings; heavy thunderstorm occurred early in the a.m. and the brood stayed in the dunes and out of sight most of the a.m.; in the p.m. the brood was observed foraging; turkey vultures in the feeding area; 6:45 a.m.-8 p.m.
- 6/12/06 3 chicks (12 days old) and 2 adults, observed; 1 adult always staying near the chicks and chasing away an AMOY; foraging and brooding observed with adult exchanges occurring; 7:45 a.m.-8 p.m.
- 6/13/06 3 chicks (13 days old) and 2 adults observed; thunderstorm the night prior, chicks foraging 100ft SW of the ephemeral pool; 7:45 a.m.-5:30 p.m.
- 6/14/06 no chicks or adult PIPL observed today; 9:30 a.m.-11:30 a.m.
- 6/15/06 3 chicks (15 days old) and 2 adults observed; heavy rain showers occurred last night; adults chased off nearby birds; brood foraging at ephemeral pool area and moving from that area to the dune area off and on throughout the observation time; 7:30 a.m.-2 p.m.
- 6/16/06 3 chicks (16 days old); chicks were observed coming over the dunes west of the ephemeral pool to forage, both adults were with the chicks most of the p.m.; nearby predators included a pair of black back gulls and ghost crabs; foraging, preening and bathing in the ephemeral pool was observed; 6:30 a.m.-8 p.m.,
- 6/17/06 3 chicks (17 days old); all 3 chicks observed on the W side of the ephemeral pool, foraging and remaining in this same general area throughout the day; chicks attempting flight with short runs and jumps-a lot of wing flapping; when a black back gull approached the brood, 1 adult and 3 chicks ran north then flattened; 1 p.m.-7 p.m.
- 6/18/06 3 chicks (18 days old) and 2 adults observed; chicks foraging most of observation time; adult PIPL ran off a RUTU; 7:30 a.m.-2:30 p.m.
- 6/19/06 3 chicks (19 days old); the brood foraged at the ephemeral pool and during midday (when it was the hottest), the brood moved into the dune area and into vegetation out of sight; 12 p.m.-3:40 p.m.
- 6/20/06 3 chicks (20 days old) and 2 adults observed foraging at ephemeral pool; adult displayed broken wing behavior when a black back gull approached brood; the adult would at times run at the gull then stop and flatten; chicks stayed flattened on the ground the whole encounter; chicks continued attempting flight with short leaps and runs; adults seem very alert and protective, time??
- 6/21/06 3 chicks (21 days old); brood showed normal foraging behavior and at times moved into the dunes and into the vegetation; gulls, ghost crabs and

- night herons are present in the foraging area; the chicks are showing signs of fledging: 6:45 a.m -8 p.m.
- 6/22/06 3 chicks (22 days old); unable to find chicks in the a.m.; during the p.m. observation foraging observed at ephemeral pool; 7 a.m.-7 p.m.
- 6/23/06 3 chicks (23 days old); brood alternated between the dry pool closest to the closure signs and their common foraging area (the pool just SW of their nest); chicks were making several short flying jumps; visitor entered closure and was asked to leave, no bird reaction was noted; chicks are flying short distances of around 20 ft.; 6:30 a.m.-7:30 p.m.
- 6/24/06 3 chicks (24 days old); brood foraging at the ephemeral pool area near the nest site; chicks observed foraging and flying small distances; brood moved into the dunes and out of sight off and on throughout the p.m. observation time; 6:45 a.m.-7:45 p.m.
- 6/25/06 3 chicks (25 days old); chicks continue attempting flight and foraging in the ephemeral pool area; no predator interaction was noted; 7 a.m.-7:30 p.m.
- 6/26/06 2 chicks (26 days old); chicks flying distances of 5 yards; rain showers occurred midday; 6:30 a.m.-2 p.m.
- 6/27/06 3 chicks (27 days old) and 2 adult observed; brood foraging and remaining in the ephemeral pool area; chicks continue to practice flying; 6:30 a.m.-2 p.m.
- 6/28/06 3 chicks (28 days old) and 2 adults observed; a tropical storm passed by last night; brood observed in the ephemeral pool area foraging and preening; 6:40 a.m.-7:30 p.m.
- 6/29/06 3 chicks (29 days old); foraging; 11 a.m.-3 p.m.
- 6/30/06 3 chicks (30 days old); brood location was from Cape Point end of bird closure by the ephemeral pool to the South Beach end of bird closure along wrack line (high tide); all 3 chicks exhibiting strong flight and foraging at the shoreline; chicks can be spotted together still but not as consistently as before; 7:30 a.m.-7:30 p.m.
- 7/01/06 3 chicks (31 days old); flying well and hard to follow with a scope; at times they were spotted foraging in the wrack line in the South Beach area; 6:40 a.m.-8:30 a.m.
- 7/02-07/06 observations were taken intermittently at the bird closure that spanned from Cape Point to South Beach, 4th of July holiday passed without incident concerning the chicks, 3 fledged PIPLs were observed foraging and flying, at shoreline and ephemeral ponds.

Pair 3, Nest1

Lat. 35.223514 Long. 75.221730

Location description: Cape Point Bird Closure

Nest Activity (pre-hatch)

Additional Note: This nest was easily observed while simultaneously observing pair 1 brood. Gaps in observation dates are assumed to be as a result of not filling out a separate form for pair 3.

6/15/06 nest found with 2 eggs; predator enclosure was installed and accepted within 20 minutes; 2 adults observed incubating and foraging.

6/17/06 incubation; nest site > 150 feet from signs

6/18/06 nest was checked today-3 eggs confirmed; 2 adults present; raccoon tracks present

6/19/06 both adults observed incubating the nest; 1 nest exchange; 6:35 a.m.-7:45 a.m.

6/20/06 3 eggs still present; 1 adult incubating; 7:10 a.m.

6/22/06 nest enclosure was checked today-3 eggs present; 1 adult observed incubating; raccoon tracks were seen 50 ft. from nest; 7 a.m.-8 a.m.

6/24/06 incubation throughout the observation time

6/29/06 nest was checked today-3 eggs were present; evidence of predators in the area around the back of the nest (snakes and gulls); 2 adults were observed alternating incubation duties; intermittent observation throughout the day

6/30/06 2 adults observed; alternating incubation duties.

7/03/06 1 adult observed incubating the nest

7/05/06 nest checked today-3 eggs present; no predator tracks noted; a lot of illegal fireworks the night before; 1 adult observed incubating

7/08/06 1 adult observed incubating

7/09/06 2 adults observed alternating incubation duties; 8 a.m.-2 p.m.

7/10/06 1 adult observed incubating; 6:30 a.m.-1:45 p.m.

7/11/06 1 adult observed incubating; 6:30 a.m.-12 p.m.

7/12/06 1 adult observed incubating; the observer notes a lot of “fidgety” behavior repositioning, downward head movements and outstretching of wings; 6:30 a.m.-2 p.m.

7/13/06 1 adult observed incubating (possibly brooding); high wind conditions kept visibility low; nest check at 7 a.m. confirmed 2 unhatched eggs and 1 hatched chick; 7 a.m.-7:30 p.m.

Brood Observations

7/13/06 1 chick and 2 adults observed, chick is 1 day old, no predator interaction

7/14/06 3 chicks and 2 adults were seen today, chicks 2 days old, 2 chicks with male adult and 1 chick with female indicating a split brood, all 3 chicks were not spotted together all at the same time, chicks stay very close to the nest, rain and gusty winds throughout the morning, 7 a.m.-11 a.m.

7/15/06 3 chicks and 2 adults were seen, chicks are 3 days old, the 3 chicks were seen at the salt pond flats within 500 feet from ORV corridor, night time closure starts high winds throughout the day, female adult with 2 chicks was found roosting at toe of dunes near west side of salt pond flats, after a parent exchange the M-PIPL was seen foraging with all 3 chicks, a lot of interactions with other birds (gulls, black bird and Rudy turnstones); interactions consisted of chasing or flying them off and sounding alarm calls to the brood, chicks hid in vegetation during the interactions, 6:35 a.m.-7:30 p.m.

- 7/16/06 2 chicks and 2 adults, chicks are 4 days old, one chick is missing from the brood, chicks at ephemeral pool in front of nest, adults foraging at both tide line and salt pond, crow in area, rainy night, 5:45 a.m.-8 p.m.
- 7/17/06 2 chick and 2 adults were observed in the morning foraging 300-500ft SW of their enclosure, chicks are 5 days old, adults switched watching the chicks, brood foraged the whole time, one chick tends to wander far from parent and other chick, brood could not be located in the evening, possum tracks in area, 6:30 a.m.-10 a.m. and 12:25 p.m.-8:05 p.m.
- 7/18/06 2 chicks and 2 adults were seen hanging out in same ephemeral pool as brood #1 used, chicks are 6 days old, 6 migrant PIPL were present, 1 got chased off by a parent PIPL, a large motorized parasail came by that was very loud but the chicks did not seem to react, 8 a.m.-7 p.m.
- 7/19/06 1 chick and 1 adult, chick is 7 days old, chick and adult foraged from high tide line at surf to north of old ephemeral pool, at times the chick was left alone, but no more than 10-15 min, no sign of parent exchange or other chicks throughout the day, tropical storm Beryl is 100 miles off the coast, and there are very high temperatures, 7:30 a.m.-12 p.m., 2:20 p.m.-8 p.m.
- 7/20/06 chick went missing, shoreline of point searched, interior of closure searched where chick was last seen, 1 adult foraging solitary at ephemeral pool, 2 PIPLs flying and alarm calls, scraping observed, distraction behavior observed, 6:30 a.m.-2 p.m. and evening searches, cat tracks in area
- 7/21/06 3 adults foraging at salt pond flats, no chicks found at shoreline, ephemeral pools, dunes, salt pond, or sand flats, 6:30 a.m.-9:20 a.m., cat, possum, and raccoon tracks present

South Beach

South beach is typically described as from salt pond road south down through north of ramp 49. This area was posted on 3/29 and 3/31. A 4 egg nest was discovered on 5/29 during a LETE survey. Nest initiation likely on 5/14-5/17 based on possible hatch date. The nest was located in the low dunes on a shelly flat. This pair was also seen foraging and territory prospecting at cape point. A full beach closure around nest was established on 6/5, due to unknown hatch date. Incubating adults flew up into predator enclosure netting several times and 1 PIPL became entangled on 6/1, but was freed quickly and appeared unharmed. The nest may have hatched on 6/13, but assumed chicks were lost on same day, not confirmed. The chicks were not seen and nest site showed no signs of predation. Both adults initially defended nest site area, subsequent surveys revealed no chicks.

Pair 2, Nest 1

Lat. 35.23091 Long. 75.54452

Location Description: Between Salt Pond Rd. & Ramp 45 road

Nest Activity (pre-hatch)

- 4/15/06 1 PIPL foraging at hook and flew off calling towards south beach, calling over ramp 45 road to salt pond road and flew back towards point, foraging at hook, 1:10 p.m.-3:18 p.m.
- 5/14-17/06 4 egg nest initiated based on possible hatch date of 6/13 and incubation period of 27-30 days
- 5/29/06 4 egg nest discovered and predator exclosure installed at 10:12 a.m. and PIPL back incubating at 10:22 a.m., 10 minutes, gulls and loose dog tracks in closure around nest, 10 a.m.-5:15 p.m., nest is 252-241 feet from bird signs/ORV corridor
- 5/30/06 incubating adult on and off nest a lot, gull may have caused PIPL to leave nest and then was also chased by LETEs, PIPL tried to fly out of the exclosure but was knocked down by the netting then ran out the side of the exclosure, kite flying in the area noted, unclear if this affected the PIPL, 7:30 a.m.-2:55 p.m. and 5:45 p.m.-8 p.m.
- 6/01/06 rain showers, incubated throughout observation time with the exception of 1 parent exchange, 7:30 a.m.-3 p.m., at 4:58 p.m. incubating adult flew into netting and became entangled, at 5:04 p.m. 2 observers freed the PIPL, it flew off apparently unharmed, a PIPL returned to incubate nest at 6:08 p.m., 4:15 p.m.-8 p.m.
- 6/02/06 both adults were observed foraging and incubating, dog off leash at salt pond road, 9:15 a.m.-7:50 p.m.
- 6/03/06 1 adult was seen incubating, no predators were noted, heavy rain in the evening, 3 p.m.-8 p.m.
- 6/04/06 1 adult was observed incubating and foraging, heavy ORV traffic was noted, black bird caused PIPL to get off the nest and run back and forth in front of the nest calling, 8 a.m.-8 p.m.
- 6/05/06 1 adult was observed incubating, no predators noted, Park Service tractor was working nearby, no disturbance for the bird other than the bird turning to face the front end loader, full beach closure installed around nest, Ramp 45 and saltpond road closed, 8:30 a.m.-3 p.m.
- 6/07/06 thunderstorms occurred last night, 2 adults incubated, 11:30 a.m. to 2 p.m.
- 6/08/06 1 PIPL observed incubating the nest from 7 a.m.-7:10 a.m.
- 6/10/06 1 adult was seen incubating and no predators were noted in the area 12:40 p.m.-1:25 p.m.
- 6/11/06 2 adults were observed today, displayed false nesting and distraction behavior, birds seemed sensitive, nest exclosure was checked today, 4 eggs were still present, large thunderstorm, last night, 6:30 a.m. to 7 a.m.
- 6/12/06 6:30 a.m. to 6:35 a.m., 1 adult was seen incubating the nest
- 6/13/06 nest exclosure was checked today and no eggs or chicks were present, assumed the chicks hatched?, 1 PIPL was defending the area, no predator

- tracks were seen and enclosure was in good condition, male PIPL was defending LETE chick and LETE adult was charging and attacking the PIPL, PIPL seems to be trying to adopt least tern chick, 3 technicians walked bird closure and surrounding areas thoroughly (south to drain and north to cape point ponds) and found no PIPL chicks, the 2 PIPL stayed with least tern chick and continued defending nest site, PIPL continued fighting with adult least tern, strong thunderstorms last night, 7:30 a.m.-4p.m and 6:45 p.m.-7:30 p.m.
- 6/14/06 continued search for lost chicks?, 1 adult was seen at nest site, and then flew towards the point, raccoon tracks were seen, no PIPL chicks were found, 6:30 a.m.-8 a.m.
- 6/16/06 continued search for chicks, dunes and beach, none were found, 6 p.m.-8 p.m., cat tracks in area
- 6/18/06 walked shoreline of saltpond, 1 PIPL foraging on mudflat, no chicks, 2-2:30 p.m.
- 6/20/06 at 2.1 miles north of ramp 49, 1 PIPL observed flying and roosting in full beach closure at wrack line and upper beach/dunes, fox tracks ? 10 a.m.-11:30 a.m., 1 adult bird seen near ramp 45 road and flew towards hook at 6:30 p.m., no chicks, new PIPL scrapes at site
- 6/27/06 technician walked from salt pond road to 0.8 mile south of ramp 45, no PIPL at tide line nor on upper beach, 9 a.m.-10:30 a.m., technician walked from south of ramp 45 road to north of salt pond road, no PIPL, no calls, no new scrapes, 6:25 p.m.-7:30 p.m.
- 6/28/06 1 PIPL seen foraging at surf in between ramp 45 and saltpond road, no chicks, no new scrapes, 5 p.m.-6:30 p.m.
- 6/29/06 full beach closure lifted, nesting closure remains
- 7/1/06 technician searched area from the drain to salt pond road, no PIPL, 8:15 a.m.-10:05 a.m.
- 7/8/06 surveyed area from north of salt pond road down through past the drain, no PIPL, 10:15 a.m.-12:15 p.m.

Hatteras Island Spit, Hatteras Inlet and Washover passes

This area of CAHA is located at the southwestern terminus of Hatteras Island. Symbolic fencing for piping plovers was initially posted on 3/29 at the inlet spit. At the Hatteras washover pass nest scrapes were discovered on 4/26 and the site was posted on 4/27. Plover observations initially noted nest scraping at the spit on 4/11. Adults foraged on both the ocean tide line and soundside creeks at the spit. The spit closure was modified several times for the protection of AMOY chicks, which secondarily resulted in ocean shoreline closure around the PIPL territory. The soundside shoreline remained open to allow access to the inlet rip area. No nest was found at Hatteras Inlet area.

Hatteras Inlet Spit

- 4/11/06 2 PIPL making nest scrapes at toe of dune at 9 a.m. within 20 feet of sign boundary, birds disturbed by human presence, a 5 foot expansion of closure made around nest scrapes, 0 PIPLs from 11 a.m.-1 p.m.
- 4/12/06 0 PIPLs, 8 a.m.-11:30 a.m.
- 4/13/06 0 PIPLs, 8 a.m.-11 a.m.
- 4/14/06 2 PIPLs, roosting and scraping, 20-50 feet in from sign boundary, both birds disturbed when vehicles pulled up to signs, stopped, and turned around, birds ran into dunes and out of sight, 8:30 a.m., one bird returned and made at least 5 more scrapes at 8:45 a.m.-scrapes within 50 feet of closure boundary, 1 bird ran off into dunes as ORV approached area at 9 a.m., at 9:35 a.m. 1 bird flew from dunes to flats and made 3 scrapes total, then flew toward soundside vocalizing, 8:20 a.m.-10:05 a.m.
- 4/15/06 1 PIPL roosting out of the wind behind small dune/mound, 7:45 a.m.-10:20 a.m., 0 PIPLs, 8 ORVs and 2 pedestrians in closure at spit tip from 1:30 p.m.-2:30 p.m., 4 signs washed out due to tides
- 4/16/06 0 PIPLs observed, tides high and washing into closure, signs washed out, vehicles parked right at bird signs, 8:15 a.m.-10:45 a.m.
- 4/17/06 1 PIPL roosting and scraping in low dunes at approximately 60 feet in from closure boundary, tip of spit overwashing, lost more signs, 8 a.m.-10:50 a.m.
- 4/18/06 0 PIPLs observed, 8 a.m.-10 a.m. and 10:30 a.m.-11:30 a.m.
- 4/19/06 1 PIPL calling, aerial displays, scraping within 10-40 feet of signs near low dunes on oceanside, 9 a.m.-11:25 a.m.
- 4/20/06 60 feet bump out of closure in vicinity of nest scrapes posted
- 4/22/06 0 PIPLs observed/confirmed, brief glimpse of PIPL at low dunes, 7:30-8:30 a.m.
- 4/24/06 1 PIPL at 8:15 a.m., 0 PIPLs observed in territorial scrape area, 10:15-10:50 a.m.
- 4/26/06 0 PIPLs observed, 7:57-8:40 a.m. and 10 a.m.-11 a.m.
- 4/27/06 0 PIPLs observed, 10 a.m.-12 p.m.
- 4/28/06 1 PIPL foraging on mudflats at the spit
- 4/29/06 0 PIPLs observed, 10 a.m.-11 a.m.
- 5/2/06 0 PIPLs observed, 10 a.m.-11:20 a.m.
- 5/4/06 0 PIPLs observed, 10 a.m.-11 a.m.
- 5/5/06 1 PIPL foraging oceanside at low tide across from pole road, roosting and preening in tidal zone, disturbed by passing vehicles, 9:30 a.m.-11:45 a.m.
- 5/8/06 2 PIPLs flying and calling close together over closure closer to pole road exit at 12:01 p.m., birds flew off to the north
- 5/15/06 2 PIPLs walking in low dunes 250 feet south of AMOY nest, 1 bird flying and calling in area right behind safety closure, 1 bird roosting in closure at 84 meters from signs, 10:30 a.m.-12:45 p.m., Shoreline closure established to protect AMOY chicks and oceanside foraging area for PIPL
- 5/16/06 1 PIPL reported doing aerial displays at spit, 8 a.m.

5/17/06 0 PIPLs observed during walk thru, 9 a.m.-12 p.m.
 5/18/06 0 PIPLs observed, 3:30 p.m.-4 p.m.
 5/20/06 1 PIPL foraging at northern overwash pond, soundside, 11:50 a.m.
 5/21/06 1 PIPL observed calling, roosting, foraging in closure at 11 a.m., 0 PIPLs
 observed during walk thru survey, 12:30 p.m.-1 p.m.
 5/22/06 0 PIPLs observed in closure, 8 a.m.-10:15 a.m.
 5/23/06 1 PIPL observed flying and landing near 2005 nest site, scrapes located,
 2 p.m.-3:15 p.m.
 5/24/06 0 PIPLs observed, 8 a.m.-10 a.m.
 5/25/06 0 PIPLs observed, 7:55 a.m.-1:35 p.m., 1 PIPL roosting at soundside creek
 and then flew towards oceanside at 3:10 p.m.
 5/26/06 0 PIPLs observed, 8 a.m.-1:30 p.m., 1 bird foraging on large north
 soundside creek at 2:45 p.m.
 5/27/06 0 PIPLs observed, 10:18 a.m.-10:50 a.m.
 5/28/06 0 PIPLs observed, soundside and oceanside, 12:50 p.m.-7:45 p.m.
 5/31/06 0 PIPLs observed, soundside, interior of closure, 10 a.m.-11 a.m.
 6/1/06 0 PIPLs observed, soundside, flats, and interior of closure, 12:30 p.m.-2
 p.m.
 6/2/06 0 PIPLs observed, time unknown
 6/4/06 0 PIPLs observed, 1:15 p.m.-7:45 p.m.
 6/6/06 0 PIPLs observed, 8-10 a.m.
 6/7/06 0 PIPLs observed, soundside and flats 8-11 a.m.
 6/12/06 posted shoreline closure for second AMOY brood, ocean shoreline closed
 approximately from pole road to inlet rip
 6/17/06 0 PIPLs observed, soundside and interior of closure 2 p.m.-5:30 p.m.
 6/19/06 0 PIPLs observed, soundside and oceanside, 9:30 a.m.-12:06 p.m.
 6/20/06 0 PIPLs observed, soundside and oceanside, 9 a.m.-10 a.m.,
 1 PIPL calling and flying around LETE colony at 1:30 p.m.
 6/25/06 0 PIPLs observed, interior of closure, 7:30 a.m.-10 a.m.
 6/27/06 0 PIPLs observed, soundside and oceanside, 10 a.m.-10:50 a.m.
 6/28/06 reopened 600 feet of ocean shoreline for pedestrian use from south
 boundary since AMOY chicks fledged
 7/1/06 1 PIPL foraging, preening, flew into near LETE colony and then flew back
 to ocean tide to forage at 8 a.m., walked interior, 6:40 a.m.-12:30 p.m.
 7/4/06 0 PIPLs observed, oceanside to soundside, 8:30 a.m.-10:30 p.m.
 7/5/06 0 PIPLs observed, soundside, interior, Oceanside, 7 a.m.-11 a.m.
 7/6/06 0 PIPLs observed, oceanside and soundside, 9 a.m.-11:30 a.m.
 8/8/06 ocean shoreline closure reduced, shoreline area still closed for LETEs
 8/24/06 ocean shoreline closure removed to safety closure
 9/6/06 nesting closure removed

Hatteras Washover Fans

4/24/06 3 PIPLs on mudflats, 1 male, 1 female, 1 unknown, foraging, charging,
 parallel runs, 11:02 a.m.-11:47 a.m.

4/26/06	2 PIPLs foraging on mudflats, 11 a.m.-12 p.m., 4 nests scrapes found on sandy shelly portion of overwash fan at 100 feet from ORV signs, GPS-35.20026, 75.71670
4/27/06	0 PIPLs at 12:15 p.m., posted washover fan
5/2/06	1 PIPL foraging, 9:30 a.m.-1 p.m.
5/3/06	1 PIPL foraging at 11:40 a.m.
5/4/06	1 PIPL foraging and charging at semiplover, 9:30 a.m.-12 p.m.
5/5/06	1 PIPL roosting on a small dune, 11:50 a.m.-12:45 p.m.
5/16/06	0 PIPLs observed at 8:30 a.m.
5/17/06	0 PIPLs observed
5/18/06	0 PIPLs observed, 2 p.m.-3:30 p.m.
5/21/06	1 foraging on mud flats, 10 a.m.-11 a.m.
5/22/06	0 PIPLs observed, 11 a.m.-11:45 a.m.
5/24/06	0 PIPLs observed, 10 a.m.-11 a.m.
5/25/06	0 PIPLs observed, 12:45-1:05 p.m.
5/26/06	0 PIPLs observed, 12:15-12:45 p.m.
5/28/06	0 PIPLs observed, 4:35-5 p.m.
6/1/06	0 PIPLs observed, 12 p.m. and 2:30 p.m.
6/4/06	0 PIPLs observed, 4:10-5 p.m.
6/7/06	0 PIPLs observed, 8 a.m.-11 a.m.
6/12/06	1 PIPL alarm call heard in vicinity of overwash pass, 11:15 a.m.
6/19/06	0 PIPLs observed, 7:30 a.m.-9 a.m.
6/20/06	0 PIPLs observed, 8-8:30 a.m.
6/27/06	0 PIPLs observed, 9:10-10 a.m.
7/5/06	0 PIPLs observed, 8:15-10 a.m.
7/6/06	0 PIPLs observed, 7:15 a.m.-9:50 a.m.

Ocracoke Island, south point

This area of CAHA is located at the southern terminus of Ocracoke Island (south point). The pre-nesting closure was posted on 3/30. Territorial behavior first noted on 5/24. A four egg nest was discovered at 0.9 mile south of ramp 72 on 6/24. Based on a hatch date of 7/12 and field observations, the nest was likely completed on 6/14. An ocean side foraging area was posted on 7/3 and full beach closure was posted on 7/12 from ocean to sound. 3 eggs hatched, 1 unhatched egg, and 2 chicks were observed. After spending 3 days near the nest, the brood was observed foraging on the soundside tidal flats on 7/15. The brood either traveled along and around the dune line or through the dunes to the soundside foraging area. This foraging area is 0.4 linear mile from nest. Both chicks were lost, one on 7/20 and the 2nd on 7/22. Cause of chick loss is unknown, but strong weather and predators were present.

Ocracoke Pair 1, Nest 1

Lat. 35.07856 Long. 75.99577

Location Description: 0.9 Miles South of ramp 72

Pre nesting activity

- 5/16/06 1 PIPL foraging on soundside at 1 p.m.
5/19/06 1 PIPL foraging at soundside of spit, 2:30 p.m.-3:15 p.m.
5/24/06 1 PIPL foraging at tide line and 1 heard vocalizing near large dune south of ramp 72, 10:30 a.m.-11:07 a.m.
5/25/06 1 PIPL foraging at oceanside shoreline south of ramp 72 and flew to soundside 1:30-3:30 p.m.
5/31/06 1 PIPL flying and calling to soundside at 0.9 mile south of ramp 72, 1:30 p.m.-2:15 p.m.
6/1/06 1 PIPL calling and loafing on flats, 0.9 mile south ramp 72, 7 a.m.-8:30 a.m.
6/5/06 2 PIPLs foraging south of ramp 72, 12 p.m.-2:45 p.m.
6/6/06 0 PIPLs observed, rain and lightning, 12 p.m.-2:45 p.m.
6/7/06 3 PIPLs foraging, calling, charging other species, 6:30 a.m.-2 p.m.
*6 WIPL seen
6/11/06 1 foraging at surf, flew off , *10 WIPL seen on Ocracoke Island today
6/12/06 0 PIPLs seen, 12:30 p.m.-2:30 p.m.
6/13/06 2 PIPLs foraging, called, broken wing display, roosting at 0.9 mile south of ramp 72, 12 p.m.-2:45 p.m.
6/14/05 based on hatch date, 4 egg clutch probably completed today, 27-30 days
6/15/06 1 PIPL calling near 2005 scrape sites, 8:30 a.m.-10 a.m., *4 WIPL, 2 birds roosting on upper beach in traffic corridor near ramp 72 at 6:30 p.m.
6/20/06 3 PIPLs foraging at surf, roosting in ORV tracks, flew towards dunes, 1 bird distress calling and leading observer away from sand flat site at 0.9 mile south of ramp 72, searched for nest for 30 minutes, 9 a.m.-4 p.m.

Nest Activity (pre-hatch)

- 6/22/06 Nest was found today, 4 eggs were confirmed at 0.9 miles south of ramp 72 on sandy flat, 1 adult incubating the nest and 2nd adult flew to feed at shoreline, predators observed were crows, nest ~ 378 feet from signs
6/23/06 predator exclosure was put up today, 4 eggs present, and 1 PIPL showing distraction behavior, adults accept exclosure, 5:30 p.m.-6 p.m.
6/24/06 Nest observed, incubated throughout the day. 2 adults were seen, occasional repositioning and nearby foraging, nest duties were exchanged as well, 8:45 a.m.-12:35 p.m. and 5:15 p.m.-9 p.m.
6/25/06 2 PIPLs were seen, nest exchanges, incubation, 2 p.m.-6:25 p.m.
6/26/06 1 PIPL observed incubating the nest, occasional heavy rain storms and wind during mid afternoon observation, 2 p.m.-6:20 p.m.
6/27/06 2 PIPLs, 1 male and 1 female were seen foraging and incubating, female foraging on the sound side while male incubated, male appeared very alert but not disturbed, a lot of blowing sand, 6 a.m.-12 p.m., a 50 feet bump out of existing closure completed of 0.3 mile in front of nest
6/28/06 2 PIPLs were seen, male was incubating and was on and off the nest during observation time, 6 gulls were resting in the area, as close as 50m from the exclosure, crows were on signs by high tide line, heavy rain showers and high wind, 6:35 a.m. check, 1:10 p.m.-6 p.m.

- 6/29/06 2 PIPLs were seen, nest was checked today, 3 eggs, 1 buried in sand, sand peaks formed around nest, female was incubating and was off and on the nest, male was spotted foraging on the sound side, 6 a.m.-7 a.m. and 2:30 p.m.-6:30 p.m.
- 6/30/06 adult PIPL incubating the nest, PIPL flew off the nest and to the surf line to forage and was almost hit by a speeding vehicle passing through, a technician re-routed vehicles to give more room for the PIPL, the bird reacted by flying out over the surf and then returned to beach to forage behind the vehicles, nest check revealed 3 eggs, a.m. check and 3 p.m.-6 p.m.
- 7/01/06 2 PIPLs, incubating the nest, longest length of time spent off the nest was 16 minutes, no predator interactions, a.m. check and 2 p.m.-5:15 p.m.
- 7/02/06 heat reduced visibility, 2 PIPL were seen late afternoon 1 PIPL incubating nest and 1 foraging at the surf line directly in front of nest, cars that were driving low at surf line caused PIPL to fly off, vehicles driving higher up on the beach did not seem to bother the bird, a.m. check, 2:40-6:25 p.m.
- 7/03/06 2 PIPLs seen, 2 herring gulls resting near nest, PIPL got off the nest when they were near, gulls eventually flew off, both adults incubated, 9 a.m.-2 p.m., 2 p.m.-8 p.m., closure posted for ocean intertidal foraging area for 0.3 mile east of nest site, creates a drive through on middle beach
- 7/04/06 2 PIPLs, incubating the nest, nest check revealed 4 eggs present, apparently 1 egg was unburied by adult, 8 a.m.-2:45 p.m., 3:30 p.m.-6 p.m.
- 7/05/06 2 PIPLs, incubating and foraging throughout observation time, crow was spotted in the area but no interactions were seen, 8 a.m.-2 p.m., 3 p.m.-6:30 p.m.
- 7/06/06 rain, heavy at times, PIPL incubating the nest is jumpy, a lot of up and down to forage nearby, toss shells, and reposition 3 nest exchanges, fish crow at nest caused PIPL major disruption, PIPL flew off nest and flew perimeter many times but crow flew right back, PIPL also at times displayed broken wing behavior, PIPL was off the nest for 17 minutes during this encounter, 6 a.m.-1:10 p.m., 2:20 p.m.-6 p.m.
- 7/07/06 2 PIPLs, incubating the nest and foraging in the area, crow again flew in nest area but a nearby black bird chased it off with no reaction from PIPL nest exchanges were observed, 6:15 a.m.-6 p.m.
- 7/08/06 2 PIPLs, incubating, nearby predators included gulls and crows, very windy, 6:20 a.m.-2:15 p.m.
- 7/09/06 2 PIPLs, incubating and preening, a.m. check, 2:05 p.m.-6:30 p.m.
- 7/10/06 1 PIPL was seen incubating, bird was off and on nest frequently, 6 a.m.-1:30 p.m., 2:15 p.m.-8 p.m.
- 7/11/06 2 PIPLs, black back gulls and crows presence, nest check revealed 4 eggs PIPL incubated the nest off and on to forage and toss shells, a.m. check, 10 a.m.-12:20 p.m., 3 p.m.-6 p.m.
- 7/12/06 nest check revealed a newly hatched chick and 3 un-hatched eggs at

7:30 a.m., 2 PIPLs at nest site, nest continued to be incubated, 2 adults chased a GUBL tern from the area, 7:25 a.m.-10 a.m., 2 hatched chicks observed in the evening, both remained at nest site, adult brooding on nest, gulls present, 10 a.m.-8:30 p.m., chicks are 1 day old, full beach closure installed from ocean to sound

Brood Observations

- 7/13/06 2 PIPLs and 2 chicks foraging, brooding, incubating, 1 parent would be brooding chicks while the other incubated. Chicks and 1 adult PIPL were seen walking into the dunes and out of sight. 1 PIPL adult frequented the nest throughout the day, PIPL did not incubate the nest for any long periods of time, no chicks were seen in the p.m. observation, only the adult incubating the nest. High wind impaired visibility. 6:15 a.m.-12:20 p.m. and 2:30 p.m.-8:15 p.m.
- 7/14/06 2 chicks and 2 PIPL adults foraging, the chicks are 3 days old, gulls in area, 3rd egg hatched-no 3rd chick seen?, 1 egg still un-hatched, no incubation, 6:15 a.m.-12 p.m. and 3 p.m.-7:30 p.m.
- 7/15/06 brood at southern most dune on the sound side. 2 chicks and 2 PIPL adults foraging on the mud flats, adult PIPL would run off other PIPL adults in the area if they got too close to the chicks, 6:30 a.m.-1:30 p.m., 3 p.m.-5:46 p.m.
- 7/16/06 2 PIPL adults and 2 chicks foraging on the soundside, 1 egg still in nest, 1 chick slower than other, chicks are 5 days old, 6:30 a.m.-1:30 p.m. and 5:20 p.m.-6 p.m.
- 7/17/06 2 chicks and 2 PIPL adults foraging and brooding on soundside on mudflat near big dune, crows present in area, boat landed near chicks, 41 migratory PIPL and 6 WIPL present, 8:20 a.m.-12 p.m. and 12:30 p.m.-7:15 p.m.
- 7/18/06 2 chicks and 2 PIPL adults foraging on mud flats on the sound side, 1 boat is anchored north of chicks foraging area but no effect is noted, 7:50 a.m.-12 p.m. and 4 p.m.-6:50 p.m., chicks 7 days old
- 7/19/06 2 chicks and 2 PIPL adults foraging on soundside mudflat, interaction with 2 WIPLs, 7:15 a.m.-11:25 a.m.
- 7/20/06 1 chick and 1 PIPL adult (male) foraging on soundside flats, 2nd chick missing, chick is ranging 50-60 yards from adult, 2:30 p.m.-8 p.m., chick is 9 days old
- 7/21/06 1 chick and 1 PIPL adult were foraging on soundside, the chick was often on its own without an adult, parent would fly perimeter and run off other birds, this was the only time it was clear who the parent was, 7:30 a.m.-9 a.m. and 2:30 p.m.-6:30 p.m.
- 7/22/06 1 PIPL adult and 1 chick seen today, the chick is 11 days old, parent appears unconcerned about chick, windy –southwest 16-24 mph, 58 migratory PIPL present, 8 a.m.-10:30 a.m. and 4:30 p.m.-6 p.m.
- 7/23/06 No chick was seen today, a technician walked most of shoreline area and through mud flats, 1 adult was spotted showing some signs of territorial behavior, 1 mink was spotted on sound side in PIPL foraging area, heavy

rains and flooding occurred and area chick was last seen had been flooded some, winds of 30-35MPH also were present the night before, morning check and 2:10-6:25 p.m.

- 7/24/06 no chick was seen during the search of south point, ocean beach, middle flats, and dunes around nest site, 40 or more migratory PIPL present, the flats are flooded and there was heavy wind and rain the night before, cat tracks to north on nest site, mink tracks on flats and ocean beach, 7 a.m.-11 a.m. and p.m. check
- 7/25/06 no chick was found, a technician continued searching the area with no results, high number of migratory PIPL were on the flats, unknown if parent was around, 7 a.m.-11 a.m.
- 7/26/06 no chick was found after a continued search today, 47 migratory PIPL are present, predator tracks noted were Gull, otter, and mink, 7 a.m.-9 a.m.
- 7/27/06 last day of search, no chick was found and assumed lost, 8 a.m.-10 a.m.